

## AMENDMENT

### IN THE CLAIMS

Claims 1-6 and 22-34 are pending. Claims 1, 5, 25, 30, 31 are amended. Claim 6 is canceled. The following is a claim listing showing the claim status:

1. (Currently Amended ) A catalyst comprising:  
a porous substrate having an average pore size of from 1  $\mu\text{m}$  to 1000  $\mu\text{m}$ ; and  
disposed over the porous substrate, a zirconia-supported, alkali-metal-modified,  
ruthenium catalyst;  
the catalyst being characterizable by a test in which the catalyst is placed in a reaction chamber and contacted with a reactant gas mixture containing 8% CO, 7% CO<sub>2</sub>, 38% H<sub>2</sub>, and 47% H<sub>2</sub>O, at a contact time of 25 ms and a temperature of 420 °C, resulting in greater than 70% CO conversion and at least 80% CO<sub>2</sub> selectivity.
2. (Previously Presented) The catalyst of claim 1 made by steps comprising: co-impregnating zirconia with solution containing Ru and K, calcining, and reducing.
3. (Original) The catalyst of claim 1 comprising 0.1 to 10wt% Ru and 0.1 to 10wt% K.
4. (Original) The catalyst of claim 1 comprising a large pore support wherein at least 20% of the catalyst's pore volume is composed of pores in the diameter size range of 0.1 to 300 microns.
5. (Currently Amended) ~~The catalyst of claim 4~~ A catalyst comprising:  
a porous substrate having an average pore size of from 1  $\mu\text{m}$  to 1000  $\mu\text{m}$ ; and  
disposed over the porous substrate, a zirconia-supported, alkali-metal-modified,

ruthenium catalyst:

\_\_\_\_\_ the catalyst being characterizable by a test in which the catalyst is placed in a reaction chamber and contacted with a reactant gas mixture containing 8% CO, 7% CO<sub>2</sub>, 38% H<sub>2</sub>, and 47% H<sub>2</sub>O, at a contact time of 50 ms and a temperature of 325 °C, resulting in greater than 70% CO conversion and at least 80% CO<sub>2</sub> selectivity.

6. (Previously Presented)

7-21. (Canceled)

22. (Previously Presented) The catalyst of claim 1 wherein the porous substrate comprises FeCrAlY.

23. (Previously Presented) The catalyst of claim 1 comprising 0.2 to 3 wt% Ru and 0.1 to 10wt% K.

24. (Previously Presented) The catalyst of claim 23 comprising 0.5 to 3 wt% K.

25. (Currently Amended) A catalyst comprising:

a porous substrate having an average pore size of from 1 μm to 1000 μm; and  
\_\_\_\_\_ disposed over the porous substrate, a zirconia-supported, alkali-metal-modified, ruthenium  
catalyst comprising 0.2 to 3 wt% Ru and 0.1 to 10wt% K, and further wherein the  
~~The catalyst of claim 23 comprising~~ ZrO<sub>2</sub> has with a BET surface area greater than 10 m<sup>2</sup>/g.

26. (Previously Presented) The catalyst of claim 1 having a pore volume of 30 to 95%.
27. (Previously Presented) The catalyst of claim 23 wherein at least 20% of the catalyst's pore volume pore volume is composed of pores in the size range of 0.1 to 300 microns.
28. (Previously Presented) The catalyst of claim 1 wherein at least 20% of the catalyst's pore volume is composed of pores in the size range of 1 to 100 microns.
29. (Previously Presented) The catalyst of claim 3 wherein at least 50% of the catalyst's pore volume is composed of pores in the size range of 0.3 to 200 microns.
30. (Currently Amended) The catalyst of claim ~~4~~5 characterizable by a test in which the catalyst is placed in a reaction chamber and contacted with a reactant gas mixture containing 8% CO, 7% CO<sub>2</sub>, 38% H<sub>2</sub>, and 47% H<sub>2</sub>O, at a contact time of 50 ms and a temperature of 325 °C, resulting 70 to 85% CO conversion and 80-95% CO<sub>2</sub> selectivity.
31. (Currently Amended) The catalyst of claim ~~3~~5 characterizable by a test in which the catalyst is placed in a reaction chamber and contacted with a reactant gas mixture containing 8% CO, 7% CO<sub>2</sub>, 38% H<sub>2</sub>, and 47% H<sub>2</sub>O, at a contact time of 25 ms and a temperature of 420 °C, resulting in 70 to 85% CO conversion and at least 80% CO<sub>2</sub> selectivity.
32. (Previously Presented) The catalyst of claim 1 wherein the porous substrate comprises a felt.

33. (Previously Presented) The catalyst of claim 27 characterizable by a test in which the catalyst is placed in a reaction chamber and contacted with a reactant gas mixture containing 8% CO, 7% CO<sub>2</sub>, 38% H<sub>2</sub>, and 47% H<sub>2</sub>O, at a contact time of 50 ms and a temperature of 325 °C, resulting 70 to 85% CO conversion and 80-95% CO<sub>2</sub> selectivity.

34. (Previously Presented) The catalyst of claim 29 characterizable by a test in which the catalyst is placed in a reaction chamber and contacted with a reactant gas mixture containing 8% CO, 7% CO<sub>2</sub>, 38% H<sub>2</sub>, and 47% H<sub>2</sub>O, at a contact time of 25 ms and a temperature of 420 °C, resulting in 70 to 85% CO conversion and at least 85% CO<sub>2</sub> selectivity.